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REMARKS

The Applicants request reconsideration of the rejection.

Claims 3-4 and 11-17 will be pending upon entry of the above amendments.

Claims 3-4 and 11-12 were rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 885 648 (EP '648) in view of either JP 11-216455 (JP '455) or Lang, et al, U.S. Patent No. 6,235,256 (Lang). Claims 3-4 and 11-16 were also rejected under 35 U.S.C. 103(a) as being unpatentable over Kanno, et al, U.S. Publication No. 2001/0001652 (Kanno) in view of either JP '455 or Lang (Kanno is a U.S. Published application claiming foreign priority benefits to the same Japanese priority application claimed by EP '648).

The Applicants request the Examiner to review the Remarks accompanying the previous Replys. For brevity, those Remarks will not be repeated here.

Against the claims, the Examiner cites EP '648, or in the alternative, Kanno, as disclosing the base steps of decomposing, washing, and exhausting. Thus, EP '648 or Kanno represent the prior art improved by the present invention. In this regard, the Applicants note that the Examiner states that neither EP '648 nor Kanno discloses steps of removing SO_x or NO_x from the decomposed gas after washing.

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As secondary references allegedly combinable with either EP '648 or Kanno, the Examiner cites, again in the alternative, either JP '455 or Lang. Neither secondary reference, however, discloses or fairly suggests the improvement of removing at least one of SO_x and NO_x accompanying water or mist, as decomposition products of the PFC decomposition step.

The prior art has a problem in which the washing step permits toxic components in the decomposition products to form a mist with water, which clears the washing tower. In addition, SO_3 condenses when the temperature of the exhaust gas goes below its dew point, adhering on the inner wall of the exhaust pipe and causing choking thereof. Condensation also occurs on the exhaust blower adhering inside thereof to make the blower malfunction, and nitric acid mist also forms which flows into the exhaust line to corrode the exhaust pipe. In addition, HF generated from the decomposition treatment also corrodes the exhaust pipe.

In addition to the arguments previously presented, the Applicants note that EP '648 fails to disclose or fairly suggest the removal of washing-caused mist after the washing process, as now claimed in the independent claims. Further,

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EP '648 neither describes nor implies that the decomposition is performed in two processes as set forth in new Claim 17.

The secondary reference, JP '455 describes that the exhaust gas passes the exhaust gas cleaning unit 5 and then goes into a cyclone in which water is removed. The removed water is gathered and recycled to the exhaust gas cleaning unit 5 for reuse. This recycling has an increased risk that the cyclone may receive mist of a denser water. In contrast, the present invention removes the disposal water.

In addition, JP '455 does not disclose the implications of decomposing SF_6 or NF_3 . Further, JP '455 neither discloses or suggests the decomposition in two stages, as claimed in new Claim 17.

The secondary reference to Lang discloses a water spraying process located downstream of the demister 4, which results in mist being left in the exhaust gas. As noted above, this mist creates problems of contamination and corrosion in the exhaust pipes. Further, Lang does not disclose or suggest the decomposition of SF_6 or NF_3 as previously recognized.

Thus, the person of ordinary skill readily sees that the combination of references applied in the Office Action fails to render obvious the claimed invention.

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The Applicants note the addition of subject matter to the paragraph bridging pages 5 and 6 of the specification. This subject matter supports Claim 15, rejected under 35 U.S.C. §1.112, first paragraph, in the Office Action. Regrettably, the added subject matter, although present in the priority application, JP 11-335468), was inadvertently omitted in the English-language translation which became the present application. The Applicants believe that entry of the underlined portion to this paragraph is proper to accurately reflect the invention set forth in the priority application, to which benefits are claimed and entitled under 35 U.S.C. §1.119. Further, the Applicants note that the inadvertent omission is referred to in the sentence following the insertion ("A high mist removal rate can be obtained by setting the condition in the range as above.") (Emphasis added). If the Examiner determines that the underlined matter constitutes new matter, the Applicants agree to cancel Claim 15 to avoid the rejection.

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In view of the foregoing amendments and remarks, the Applicants request reconsideration of the rejection and allowance of the claims.

Respectfully submitted,



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